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Alberta Naturalist

Vol. 7 No. 4 December 1977

ALBERTA NATURALIST

VOLUME 7 NUMBER 4 DECEMBER, 1977

TABLE OF CONTENTS

COVER STORY: 'Squeaking' in Mammals, by Terry Thormin..... 273
NESTING OF THE GREAT CRESTED FLYCATCHER IN ALBERTA, by Ken Trann..... 274
SICK MAN HILL, by Allen Ronaghan..... 278
MORE NOTES ON ATTRACTING BIRDS, by Kerry Wood..... 278
HIGHLIGHTS OF BIRD BREEDING SEASON FOR SOUTHERN ALBERTA-1977, by Rudi Butot..... 280
THE BLUE JAY IN WRITING-ON-STONE PROVINCIAL PARK, ALBERTA, by D.F. Brunton..... 285
RECENT PUBLICATIONS ON THE NATURAL HISTORY OF ALBERTA (24), compiled by Virginia Lang..... 286
LETTERS TO THE EDITOR OR FAN..... 288
EDITOR'S PAGE..... 292
FAN NEWS, REPORTS, PROJECTS..... 293
CLUB NEWS..... 301
PRESIDENT'S PAGE..... 303
CONSERVATION NEWS..... 306
NOTES AND NEWS..... 312
REQUESTS FOR INFORMATION..... 313
OVERHEARD (65) and (66)..... 314

ISSN 0318-5540

Postage paid at Edmonton, Alberta, under Second Class mail
Registration Number 3604

COVER STORY

The cover illustration for this issue of the Alberta Naturalist is by Terry Thormin, a talented Edmonton artist and naturalist.

"SQUEAKING IN" MAMMALS

by Terry Thormin
Nature Centre, Edmonton, Alberta

On June 25, while on a field trip to Dinosaur Provincial Park held by the Edmonton Natural History Club, Howard Coneybeare and I discovered a long-tailed weasel at its den in an open field. Wanting to get a good photograph of this mammal, we both got our cameras out and carefully approached the den site. We found that by squeaking we were able to entice the weasel out of it's den where it sat on the edge of the hole, allowing us to photograph it. We were able to keep its interest over a period of 10 to 15 minutes by squeaking periodically. During this time we approached the weasel to within five to six feet and took a series of excellent photographs.

Squeaking is a technique for attracting birds that has been used by birders for many years now. It seems to work very well on everything from chickadees to the largest hawks and owls. It is not, however, a technique restricted to birders. Many natives in places such as South America, Africa and New Guinea make similar sounds when hunting. Nor is it only effective on birds, but can work equally well on mammals. I have seen articles in the past on the art of "Squeaking In" birds, but never on its use in attracting mammals.

For those unfamiliar with squeaking, it is a high-pitched squealing noise made by placing a wet kiss on the back of one's

hand and sucking in through the side of the mouth. Once one becomes adept at squeaking, the sound can be varied to sound like the scolding chatter of a squirrel or some other mammal or the higher pitched "scream" of a rabbit or mouse in dstress. It is generally felt that these noises either spark the curiosity of birds and mammals, or, in the case of predators, attract them by representing a potential food source.

A surprising variety of mammals can be attracted to squeaking. I have had a response by such diverse creatures as rodents and elk. One of the first mammals I ever squeaked in was a woodchuck, which I managed to lure out of it's hole while standing only five feet away. I've had similar results with hoary marmots, Richardson's and Columbian ground squirrels, chipmunks, red squirrels, pikas, weasels, badgers and many others. I've brought both red foxes and coyotes in from quite a distance and although I've only had a chance to bring in domestic cats, I would suspect that it would work just as well on any of our native cats.

The one time I tried squeaking on elk was in Banff National Park, and the result was to apparently panic a herd of about 25, causing them to run from me. I've also tried squeaking on moose and deer with no apparent results.

It is my feeling, from my limited experience, that the predators and smaller herbavores, such as the mice and squirrels are most likely to respond to squeaking. It will undoubtedly take a lot more work before we know all the species that do respond to squeaking, and why they respond.

NESTING OF THE GREAT CRESTED FLYCATCHER IN ALBERTA

by Ken Trann
R.R. #2, Kingman, Alberta

In the December, 1976, issue of the Alberta Naturalist there was a resport by myself entitled "Great Crested Flycatcher Sightings". I had mentioned in this report that there was one bird where I live (Miquelon Lake-Kingman) all summer. This bird, a

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male, did not have a mate. I was therefore apprehensive about the summer of 1977, wondering whether the bird would return, and if so, would he find a mate.

I was soon comforted. A pair of Great Crested Flycatchers nested in a birdbox situated on a large tree beside our driveway. This was a remarkable location for the first documented Alberta nest of this species - a rare nest in the yard of a birdwatcher, no less.

Following are some excerpts from my notebook which relate a few days in the life of Alberta's first documented family of Great Crested Flycatchers:

"May 23/77 - The Great Crested Flycatcher has returned. He was here yesterday and today. Today, especially, he has been active and everpresent. He is singing both the "wheep" and the "prrrreet" songs. But, there is still only the one bird. I hope this isn't a repeat of last year.

May 29/77 - The Flycatcher is frequenting the area around one of the large birdboxes. Still only one bird.

June 8/77 - The Flycatcher was in full view for an hour yesterday while he checked bird houses and sang. Today, I built and erected two medium sized boxes and I put up one small house with a 2" hole. I'm hoping that this year there will a nest in one of them. There is still only one bird - the male - singing.

June 17/77 - Well, this is not a repeat of last year. There are now two Great Crested Flycatchers - a pair, in fact, and - a nest! I was driving along the lane towards home when I glanced up and saw a Flycatcher entering one of the large nest boxes (10" x 10" x 15" deep). I investigated and found the nest - and what a nest it is: snakeskins (casts) bark, feathers, grass, fur. It's a dog's breakfast of a nest. No eggs.

June 19/77 - 1 egg in the Flycatcher nest. The birds were present earlier today but were not around this evening. Jan, my wife,

and I had a peek into the nest, which is an unbelievable mess of almost everything imaginable; moss, leaves, and 3 kinds of fur should be added to the list of materials. The egg was in a hollowed out depression in one corner, partially hidden under a snakeskin. The egg is cream-coloured with reddish-brown streaks.

June 22/77 - There are three eggs in the Flycatcher's nest, the same as yesterday. They've been laying one egg a day, until today. The birds are still around, though. I waited for them tonight, patiently sipping a coffee while comfortably seated in a lawn chair (lazy man's birding), and they showed up. Earlier, I had found a snakeskin casting so I placed it on a branch a short distance from the birdbox, and one of the Flycatchers flew over to have a look. Just then a neighbour's tractor back-fired and frightened the Flycatcher back into the woods. Both of the birds stayed close by, but did not return to the snakeskin or the box. The mosquitoes finally drove me back into the house.

June 24/77 - 4 eggs in the Flycatcher nest. They used the snakeskin I had placed near the box yesterday.

June 25/77 - 5 eggs in the Flycatcher nest.

June 28/77 - Still 5 eggs. The female flushed from the box when I approached. I am going to leave them alone now for a few weeks. They are too shy to be bothered too often.

July 17/77 - 10:00 a.m. Terry Thormin, Rainer Ebel, Eric Tull, Allen Wisely, Tom Wetmore, and Wayne Neeley were out to look at the Flycatchers. The birds were very much in evidence, which is unusual because they have been extremely shy. Not so today. The fellows heard the male singing and saw both of the birds. After they watched and listened for awhile I showed them the nest, and the three, now-feathered young. 2 eggs did not hatch.

1:00 p.m. Mrs. Winnie Horn, Mrs. Airlie Fowler, and Richard Klauke were also out to see the Flycatchers. They were fortunate enough to see one of the birds approach the nest-box with a dragonfly and then decide not to enter the box,

probably because we were there watching.
3:00 p.m. - And more visitors: Al Smith and his wife, Linda. Al took some photographs of me banding the young birds.

July 23/77 - The young Flycatchers have left the nest.

July 26/77 - the Flycatchers have not been around much lately, but today the adults were present. They were both in an open area and hawking insects. I watched the male interrupt his singing to catch a large dragonfly and then fly off into the woods to the west of the clearing. The female remainded behind for a few minutes, caught something and then flew off in the same direction as the male. I would assume the young are back there somewhere.

July 31/77 - Sighted and heard at least three of the Flycatcher family - a singing male (just the "wheep" call) and two others - one of which was banded! There were more than three birds, I think, but I could not manage a decent view of them in the high trees. I did hear several "wheep" calls, made by the young birds, I assume, which were softer than the male's call, a louder noise by far. The young birds' calls still mark them unmistakably as Crested Flycatchers. They were very noisy, calling often usually every one to three minutes. I watched one of the birds catch and eat a dragonfly. The bird was perched on a branch twenty feet up a poplar, when it suddenly dove to the ground, snagged the dragonfly and flew back up to the perch. The Flycatcher then proceeded to smash the dragonfly against the branch it was sitting on. This smashing behaviour was continued for 20 to 30 seconds and then the bird swallows the dragonfly, head first, in one gulp.

Aug 2/77 - The birds are as noisy at this time of year as they are in the spring. For awhile, during incubation and for a short time after hatching, they were silent."

Postscript: The male Great Crested Flycatcher was last seen on Sept. 6. The entire family was last seen on Aug. 17.

On July 24 I heard and observed another singing male Great Crested Flycatcher on the Waskahegan Trail near Miquelon Lake.

SICK MAN HILL

by Allen Ronaghan
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Many landmarks of Alberta's countryside are in out-of-the-way places seldom seen by the highway traveller. This is not true of Sick Man Hill. One is tempted to say that it stands like a sentinel guarding the approaches to eastern Alberta. The alert traveller can see it from west of Royal Park through Vegreville and on east of Lavoy. And the same traveller, if he is willing to leave the Yellowhead for a few minutes, will find that he has a choice of two district roads which pass over the shoulder of the hill giving excellent views to the west, south and north. One road takes him within several hundred yards of the geodetic survey cairn "Lavoy" on the hill's highest point. He can park his car at the roadside and train his binoculars over as lovely a stretch of landscape as can be found in Alberta. The other road affords a view of the full length of Sick Man Lake.

Early maps show the hill with the Cree name Akasu, which can be translated as "he is sick". Diaries of the 1870's refer to the hill as "Sick Mountain", "Sickness Hill" or "Sick Man Hill". Apparently an encampment of Indians to the north of the lake was wiped out by smallpox in one of the great epidemics of the last century. The appearance of the neglected teepees and their pock-marked corpses so etched itself into the memories of those who came by shortly afterward that the hill was given a name which commemorates the event.

MORE NOTES ON ATTRACTING BIRDS

by Kerry Wood
R.R. #2, Red Deer

A few questions have arisen since the appearance of my article "Attracting Birds" in the September issue (vol. 7, No. 3, 1977). Here are a few additional points in response to those queries:

In caring for wild birds it is necessary to protect them from domestic or free ranging stray cats. Cats eat the fledglings of ground nesting birds, and will molest them in bird boxes, if the bird houses posts are not given a wrapping of metal. The aluminum sheets used by newspaper printers is excellent for this purpose. No matter how well fed a house cat, it will pounce upon wild birds whenever possible.

Cats bothering your feeders or your nest boxes cannot be termed 'free animals'; if they are bone fide pets, their owners are responsible, and if strays you have a moral right to eliminate them. Cat traps are available, which capture but do not injure them.

If your feeding station is near trees where red squirrels live, the aluminum wrapping will discourage them when placed above and below your feeding shelf. On the poles of nest boxes it is also a protection from their raids upon the eggs or young birds.

Perhaps the greatest danger to chickadees is from the flying squirrels' habit of seeking out their communal night roots in tree cavities. When a flying squirrel finds such sleeping quarters, its body blocks the entrance while the animal eats the eight or ten chickadees sheltering there for the winter night. Many times over the years we have found the blood stains and feather remains attesting to this slaughter. Red squirrels also have chewed the entrance to chickadees' nest cavities to the same end, and devoured the young of a pair of tree swallows on our meadow this past summer.

Regarding the question of feeding birds during the summer, there are different schools of thought. During my sixty years of observing them I have been convinced that our song birds need the extra help we can give them to provide for their young. This is especially so since the advent of weed sprays and insecticides which have destroyed so much of their natural food. In most cases it is the adult birds who come to our feeders, and not the fledglings 'becoming dependent on unusual handouts'.

A few words of caution, however. Peanut butter or peanuts

must not be offered after the end of January, because of the scientific findings that the peanut oil can cause the death of birds from becoming egg-bound in the springtime nesting season. Suet also should be reserved for your winter feeding stations, because of its rapid spoilage in hot weather. Don't give salted table scraps or any bread which has become mouldy. Most Wild Birdseed mixtures are quite safe and acceptable summer or winter.

The house sparrows and European starlings were imported against the advice of ornithologists before the turn of this century, and their widespread increase has become a bane to all concerned naturalists. They are both the hosts of encephalitis, the disease which is transmitted by mosquitoes. They are very aggressive, and will kill either parent birds or fledglings in disputes over nesting territories. Traps for both species are available, in fact the one trap will capture both kinds. Order the Have-a-Heart No. 10 Elevator trap from Vancouver - I'll give you the address on request. Several years ago mine cost about $20.00 plus postage for delivery.

There are various traps designed to catch magpies, and your district agriculturist can give you directions about a source. It will cost around $20.00 also.

We have about a hundred bird houses on our property, and year-round visitors to our feeding station. Besides the familiar regulars we are delighted with the occasional bonus of a rare or beautiful visitor. I wish you the same joy.

HIGHLIGHTS OF BIRD BREEDING SEASON FOR SOUTHERN ALBERTA - 1977

by Rudi Butot
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The summer started off with a very warm and dry June. July and August were cloudy and wet, with August being the wettest since 1968. However it did not replenish the water supply in the numerous dried out potholes and sloughs.

Two Common Loons were reported from Water Valley on 17 July, one from Jasper on 29 July, and two from Calgary on 7 August and one on 14 August. Red-necked Grebes were scarce in the Calgary area, with reports coming from Irricana of two on 11 June, from Calgary two on 7 August, and two adults with one young near Water Valley on 17 July. However, from Elk Island National Park came a report of 51 birds and six occupied nests on 1 July. Horned Grebe numbers were also very low, with the only nesting reports coming from Czar on 2 July, where three nests with eggs were seen. Eared Grebes on the other hand did not fare badly, with 150 nests reported from Calgary on 25 June, over 200 birds at Frank Lake on 25 June, 300 near Maleb on 10 July, and over 2000 birds with at least 950 occupied nests south of Burdett on 10 July. Western Grebes were also well reported, with 24 at Frank Lake on 19 June and 50 with four fledged young on 28 August, and from Brooks 35 birds, of which sixteen were half grown young, on 10 July. Pied-billed Grebe reports were also more numberous than last year, singles being reported from Keoma on 11 June, Frank Lake on 25 June, Czar on 2 July and Rolling Hills on 10 July, while an adult and one young were reported from Irricana on 14 August and five on 27 August, and eight at Frank Lake on 28 August.

White Pelican reports were also more numberous than last year, but the total numbers were not as high. At Frank Lake the first four were sighted on 18 June, with the numbers increasing to 143 by 25 June, and then down to 17 by 28 August. At Milo the numbers were four on 5 August and 123 on 28 August. Double-crested Cormorants were reported as singles from Calgary on 5 June, High River on 9 July, and Frank Lake on 19 June with the numbers increasing to 17 by 25 June. Two were reported from Consort on 2 July, two at Burdett on 10 July, and six at Lake Newell on 10 July, and 150 on 31 July. From Frank Lake came reports of the sighting of a rare adult Great Egret on 18, 19 and 22 June, and an equally rare adult Snowy Egret on 19 June. Photographs of both birds were obtained. Black-crowned Night Herons were reported from Maleb in the south to Czar in the north. The one at Czar was believed to be nesting. A total of 34 birds were reported, with some of the larger sightings being 17 near Brooks on 10 July, and one adult with four immatures at Milo on 28 August.

One Whistling Swan was seen near Burdett on 10 July, apparently staying for the summer. Canada Geese reports were

fairly numerous, with the largest sighting being of 24 adults and 100 young on 25 June at Frank Lake, and six were seen in Jasper Park on 29 July. A Snow Goose was reported from Frank Lake on 28 August, and one White-fronted Goose was seen in Calgary on 14 August. Appreciable numbers of ducks were seen loafing and feeding on the larger sloughs and lakes early in the summer, apparently having given up on nesting for the year. A hybrid Cinnamon Teal was seen on Frank Lake on 25 June, and three pairs were reported from there on 18 June. A large flock of 400 Redheads was reported from east of Rolling Hills on 10 July, while 80 Canvasbacks were seen on that same day near Burdett. A male Wood Duck was seen near Water Valley on 25 June. Two pairs of Ring-necked Ducks were reported from Kitcoty on 2 July. Some of the Bufflehead reports showed 45 at Frank Lake on 19 June and 30 at Irricana on 27 August. Seven Harlequinn Ducks were reported from Banff Park on 15 August, four males and three females, while two were seen there on 20 August.

A Turkey Vulture was reported from Patricia on 1 August. Single Sharp-shinned Hawks were reported throughout the summer from Calgary, Strathmore, Namaka, and Bragg Creek, while two adults with four almost fledged young were seen near Ricinus on 24 July. Several Cooper's Hawks were also reported from Calgary during the summer. Numerous Swainson's Hawk young were reported during the last week in August from Morley, Calgary, High River, Milo, and Irricana. Ferruginous Hawks were reported nesting near Irricana and Pakowki Lake. The nest at Irricana was lost when the landowner bulldozed over the clump of trees in which it was located. Ospreys were seen on the nest near Banff on 19 August, and a pair was also sighted near Ricinus on 28 June. Single immature Golden Eagles were reported from Bragg Creek on 11 June and Morley on 17 July. Kestrels were well reported this summer, but only a few Merlin were received.

Two Semipalmated Plovers were sighted in Calgary on 9 August, and seven adults were reported from Frank Lake on 27 August. Probably due to the scarcity of moist nesting places 75 Killdeer were reported from Frank Lake on 19 June and 25 on 27 August. On 28 August one American Golden Plover and 395 Black-bellied Plovers were reported from Milo, while a Ruddy Turnstone was seen in Calgary on 16 August. The Long-billed Curlew apparently did well this summer, two adults with two young near Delacour on 11 June, six adults near Brant on 18 June, two adults and one young near Ensign on 25 June, one adult near Grassy Lake on 10 July, four adults and three young near Rolling

Hills on the same day, as were eight adults and one young at Lake Newell. A pair of Upland Sandpipers were seen near Balzac on 22 June, and six adults with two young were sighted near Coronation on 2 July, while one was sighted near Brooks on 10 July. One Dunlin was seen at Frank Lake on 25 June, and a single Sanderling was at Irricana on 13 July. Willet numbers were very low, but 200 Marbled Godwits were reported from Frank Lake on 25 June, and over 600 near Sterling on 9 July, and 120 near New Dayton on 9 July. Forty-five American Avocets were reported from Frank Lake on 25 June and 40 near New Dayton on 9 July, while 25 were seen near Kathryn on 13 July. Northern Phalarope reports completely overwhelmed Wilson's Phalarope reports this summer. At Frank Lake seven female Northerns were seen on 19 June, near Consort 381 females on 2 July, 85 females near Monitor on that same day, over 300 females near New Dayton on 9 July, six females near Pakowki Lake also on 9 July, while six Northerns were at Moraine Lake near Lake Louise on 21 August. A rare Red Phalarope was sighted near Milo on 28 August.

A pair of Black-billed Cuckoos was reported from near Raven on 5 June, and single sightings came in from Calgary on 11 June and 3 August. A combination of one adult and one young Burrowing Owl were seen twice within a three mile stretch of gravel road 30 miles south of Rolling Hills on 10 July, whether these four birds made up one or two families was not clear. Single Rufous Hummingbirds, both male and female, were reported throughout the summer from Calgary, and one was seen near Ricinus on 28 June and one near Banff on 9 August. Three male Calliope Hummingbirds were reported from Seebe on 18 June. A female Northern three-toed Woodpecker was reported from Keoma on 11 June.

Flycatcher reports were fewer than last year. The Eastern Kingbird was the most often reported species, followed by the Western Wood Pewee, and the Western Kingbird. Horned Larks by the thousands were seen in southern Alberta near Writing-On-Stone Provincial Park early in July, while one adult with one small young were reported from above the tree-line in Jasper Park on 30 July. Four Purple Martins were reported in flight at Calgary on 14 August. Reported swallow sightings were very low for our area this year. Common Crows were already gathering in large flocks by mid July, and over 150 were seen in a field near Springbank on 15 August. Six Stellar Jays were reported from Waterton Park on 28 July. A Mountain Chickadee with two almost fledged young were seen near Cochrane on 19 June, but no

Boreal Chickadee sightings were reported this summer. One Winter Wren was reported from Exshaw on 19 June, and two were seen near Banff on 5 July. Four Long-billed Marsh Wrens were sighted near Brooks on 10 July. Rock Wren reports came in as follows: two at Milk River on 29 May, four near Beynon on 5 June, one near Canmore on 19 June, and one from Banff on 5 July.

The two Eastern Bluebirds first seen in Calgary on 28 May were still there on 5 June, after which day only one was reported until 12 June. Mountain Bluebird reports were not numerous, the largest concentrations were five pairs near Bottrel on 17 June, and eight near Priddis on 26 June. Townsend's Solitaire sightings were high this summer, with the largest group seen near Water Valley on 1 August, two adults with seven young. Loggerhead Shrike reports were low this summer, although six were seen between Writing-On-Stone Provincial Park and Pakowki Lake, on 9 and 10 July.

A Solitary Vireo was reported from Priddis on 11 June, and from Calgary on 23 August, while a Red-eyed Vireo was also sighted there that same day. Some of the less common warblers for which reports were received were: Black-and-White Warbler, one in Calgary on 7 and 17 August; Orange-crowned Warbler, two on 10 August and one on 15 August, both sightings from Calgary; Magnolia Warbler, one on 14 August, four on 20 August, two on 23 August, and one on 24 August from Calgary; Townsend's Warbler, four in Canmore on 19 June and two in Banff on 5 July; Chestnut-sided Warbler, one in Calgary on 3 July; Bay-breasted Warbler, two in Calgary on 20 August; Blackpoll Warbler, three on 20 August and one on 23 August, all in Calgary; Ovenbird, one in Seebe on 18 June and one in Calgary on 19 August; Northern Waterthrush were well reported, Bragg Creek two on 10 June, Longview, one on 4 July, and in ones and twos from Calgary on 10, 16 to 21, and 23 August; Connecticut Warbler, one adult and one fledgling on 16 July near Bottrel; MacGillivray's Warbler, one at Seebe on 18 June, three near Longview on 4 July, two in Banff on 15 and 17 August; Canada Warbler, one from 12 to 27 August, with two on 15 August, all from Calgary.

A pair of Bobolinks were seen near Calgary in July. Western Tanagers were reported as follows; one in Calgary on 4 June and two on 15 August, one at Bottrel on 16 July, and one in Jasper on 27 August. Rose-breasted Grosbeak sightings were also up, with one on

26 June from Bearberry, two on 15 August, three on 16 August and one on 19, 20, and 23 August, all from Calgary, and one near Millarville on 17 August. From near Longview came a report of eight Lazuli Buntings on 4 July, while five Grey-crowned Rosy Finches were seen near Bragg Creek on 11 June, and three near Longview on 28 June. Eight Red Crossbills were reported from Canmore on 19 June. Rufous-sided Towhee reports came from Etzikom, two on 4 June, and Beynon three on 5 June, while Lark Bunting reports showed four near Etzikom on 4 June, and twelve near Writing-On-Stone Park on 9 July. Baird's Sparrows were reported from Balzac, where four were sighted on 22 June, while two Brewer's Sparrows were reported from Bragg Creek on 24 July. A singing male Sharp-tailed Sparrow was seen near Sounding Lake on 2 July. Three Lincoln's Sparrows were seen in Calgary on 21 August and one on 27 August. Three Fox Sparrows were reported from Banff on 5 July, while two McCown's Longspurs were seen near Etzikom on 4 June. Chestnut-collared Longspurs were reported from near Pakowki Lake in the hundreds on 9 July.

More detailed tabulations for the summer period can be found in late summer and early fall issues of The Calgary Field Naturalist.

THE BLUE JAY IN WRITING-ON-STONE PROVINCIAL PARK, ALBERTA

by D.F. Brunton
Box 757, Canmore, Alberta

The Blue Jay (Cyanoncitta cristata) is well established as a resident of eastern and central Alberta - essentially the Aspen Parkland and lower Boreal forest areas of the province. It is rare in the mountains of western Alberta and in the grasslands of the south. Salt and Salt (1976) state that the species is known as a vagrant in the grasslands, being recorded as far south as Brooks.

On September 24, 1977, Mary Dyer, Karen Grant and the writer observed two Blue Jays in the campground area of Writing-on-Stone Provincial Park in the Milk River Valley. Both birds were first heard flying over; we watched one as it flew over the Populus-Betula-Shepherdia growth of the rivershore area. The birds were clearly observed and heard. All three observers are very familiar with the species from previous experience in Ontario and have no doubt of the identification.

Both birds were moving from north to south and did not stop in the camp-ground area. They appeared to be migrating. Although the Blue Jay is a resident, occasional fall migrations are observed. This writer has observed large fall movements of Blue Jays in eastern Ontario and western Quebec in the 1960's and similar movements are described by Groh (1958). Erruptive fall migrations by so-called resident species are known for Gray Jay and Black-capped and Boreal Chickadees. The nature of these migrations is unclear. They could, however, result from excess immature birds moving out of normal range after a particularly successful breeding season.

Although this is the first record for the Blue Jay in the Milk River area, it is quite possible that the species occurs occasionally in extreme southern Alberta, during these irregular fall movements. Such forested locations as the Milk River canyon serve as migration trap and would be logical places to expect additional records of Blue Jay.

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Letters to the Editor

Helen Schuler

I was considerably saddened to learn today of the death of Helen Schuler, a former FAN Treasurer and President of the Lethbridge Naturalists Society. Mrs. Schuler's contribution to natural history in Alberta was considerable, and I presume will be the subject of an article in this journal by someone who knew her better than I did. However, I wish to express once again my gratitude to her in contrib-

uting regularly to the Club News section of the Alberta Naturalist while I was Editor. I hope her example will be followed by many.

Martin K. McNicholl,
Former Editor.

Red Deer River Dam

Mrs. Dorothy Broadbent, President
Federation of Alberta Naturalists
R.R. #4
RED DEER, Alberta T4N 5E4

Dear Mrs. Broadbent:

Thank you for your recent letter, expressing the views of the Directors of the Federation of Alberta Naturalists concerning our decision to construct a dam on the Red Deer River.

As a provincial government, our decision was made with careful consideration and a thorough review of options for the flow regulation of the river with regard to factors such as the environmental and social impact, effectiveness, as well as the costs and benefits. The future of a petrochemical industry in Alberta was not a significant factor in our decision.

I believe that agricultural land is a most valuable resource. I am also of the view, though, that perhaps one of our most precious resources may be our fresh water supply and our ability to conserve that supply. Long after petroleum and petroleum related activity has run its course in this province, we may reach the conclusion that - next to land - the most valuable resource will be our water supply. In our view, it is wasteful and poor conservation practice to allow the water to simply run off every spring without effective conservation by damming and more adequately controlling the water supply.

There is also no question in my mind that the longer term future of Alberta is much better if we do not concentrate our population in

the two metropolitan centres and end up with a province where those centres reach close to a million population with the balance of the province remaining far below potential in terms of its capacity to absorb population increases. To assure a shift from such over-concentration in the metropolitan areas, it is essential that the provincial government provide the basic essentials for expansion of smaller centres. Obviously Central Alberta is a key in this policy. Obviously too, communities such as Red Deer and Drumheller, which are on the Red Deer River Basin, require an improved water supply. Our concern in this regard is reflected by the new water supply system we have constructed for the towns from Innisfail to Crossfield with water from the Red Deer River.

The decision as to the actual site for the construction of the dam was a difficult one, particularly when you are involved with the conflicts between agricultural land and preserving the eastern slopes of the foothills. The best advice that we received indicated there would be some disruption of agricultural land, but it would be very nominal compared to the proportion of land being brought into agricultural production every day in Alberta.

Our government in the past has shown very deep concern for the preservation of agricultural land in a number of ways. You may have forgotten that last year the government stepped in and stopped the development of the Dodds-Round Hill Project near Camrose, which would have taken out of production a vast amount of agricultural land many, many times more than will be disturbed by the Red Deer River dam decision. In addition to that, the government has brought in a policy for coal development which is very restrictive in certain areas and again gives emphasis to preservation of agricultural land. I hope you recall those particular decisions.

You mention the recommendations of the Environment Conservation Authority - this is strictly an advisory board. As you may be aware, we accepted approximately 80 of the 89 recommendations contained in their report. You should keep in mind that the Environment Conservation Authority only investigated the environmental aspects and not the overall costs and benefits of the dam, as did the government.

I appreciate your taking the time to write to me.

Yours truly,
Peter Lougheed

Fan News

Despite public pressure, the ECA bill was passed. On October 7 Martin Edwards, President of The Canadian Nature Federation wrote a letter to Peter Lougheed urging maintenance of the ECA in its present form with the appointment of new permanent board members "so that the ECA can maintain its services to the people of Alberta and of Canada at the same level as it has done in the past". Following is the Premier's reply:

October 18, 1977

Mr. Martin Edwards
President
Canadian Nature Federation
46 Elgin Street
Ottawa, Ontario K1P 5K6

Dear Mr. Edwards:

Re: Amendments to the Environment Conservation Act

Thank you for your letter of October 7th, 1977, raising questions about the Government's plan to amend the Environment Conservation Act and restructure the organization.

I am familiar with the aims and objectives of the Canadian Nature Federation and I have, on occasion, read Nature Canada. The reasonable, well informed work of your Federation is widely known and respected and I appreciated receiving your comments on our proposals.

Just after receiving your letter, the Minister of Environment introduced Bill 74, the Environment Conservation Authority Amendment Act 1977, which I enclose for your reference.

The amendments to the Environment Conservation Act are considered by our Government as being constructive in improving the structure of the Environment Conservation Authority. You may not be aware that internal problems have weakened the effectiveness of the Authority for several years. Although it was partly caused by personality conflicts, it is our judgement that the administrative structure contributed significantly to the Environment Conservation Authority's

problems. We believe that the new structure will work effectively. Forum members will be appointed on a short term basis and will be selected on the basis of their expertise and interest in the particular topic. The short-term nature of the assignment may very well make it attractive to persons who would otherwise not be able to contribute to the work of a public body such as the Environment Conservation Authority.

It is important to note that the selection process for the Environment Conservation Authority members is not being changed - the selections and appointments will still be made by the Executive Council.

The new Chief Executive Officer and Vice-Chairman of the Environment Conservation Authority has been selected and a public announcement will be made shortly. We are certainly pleased with the response from across Canada to the advertisement for the position - many high calibre individuals expressed an interest in serving with a restructured Environment Conservation Authority.

We have noted the additional concerns of the Canadian Nature Federation and I thank you for taking the time to write.

Yours truly,

Peter Lougheed

EDITOR'S PAGE

Once again, I find myself editing the Alberta Naturalist. This time, however, it's on an interim basis. I ask all FAN members to give some serious thought to the problem of who could and would like to edit your AN. Any suggestions (or, dare I hope, volunteers?) would be welcomed.

I want to commend Martin McNicholl for a job very well done.

Under his editorship the AN has attained it's present high quality and (I think I can speak for all FAN members) we heartily thank him for his tireless efforts, and wish him well in the future.

I also want to commend all contributors to the AN. The quality and quantity of material submitted reflects well for Alberta naturalists. Keep up the good work!

Virginia Lang

FAN NEWS, REPORTS, PROJECTS

Upcoming FAN Annual General Meeting

FAN's winter Annual General Meeting will be at Camp Caroline, March 10-12, 1978. Rick Pratt, Environmental Coordinator with the Canadian Nature Federation will be the keynote speaker. Other resource people will be present to speak and lead field trips.

Those attending last year's meeting at Camp Caroline enjoyed the seclusion, the relaxed atmosphere of the comfortable camp, and the opportunity to hike, snowshoe or ski through acres of private land and crown forests.

All meals are provided, visitors must bring a sleeping bag and bathing suit (heated pool). They must not bring alcohol onto the premises or smoke inside the buildings. Rates are: Adults, $35.00; 16 and up, $25.00; 10-15, $20.00; 3-9, $15.00; 0-2, free.

Please book early if you plan to attend, as space is limited. We require a $10.00 deposit for adults, to be sent to Lyman Matthews, FAN Secretary. We hope to see you there.

FAN Membership Fee Increase - The 1978 membership dues for FAN will be $4.00, up 'a buck', for a dollar per member will be contributed

by FAN to the Bucks for Wildlife Fund in 1978. Now that naturalists are also contributing to the fund, Fish and Wildlife biologists are starting to carry out projects to improve habitat for non-game speciies. Nesting ledges for birds of prey have been dug out of river banks in the Lethbridge and Red Deer areas, and some nesting platforms have been built for use by herons. Another reason for contributing to the Buck for Wildlife Fund is so naturalists will be in a position to recommend habitat improvement projects be carried out for non-game species when we consider such projects necessary.

FAN Essay Competition

The FAN Essay Competition for students in Grades four to nine will be sponsored in the spring as the Second Annual Essay competition by the Environmental Education Committee, of FAN.

Start studying about the Endangered Species in Canada, and the wild flowers of Alberta are anticipated topics for the essays. Information brochures will be in the schools by March 15 and the deadlines for receiving essays will be June 1/78. The brochures will be sent to librarians and science teachers. There will be two categories for entrants: Grades four to six and the second will be Grades seven to nine and there will be cash prizes in each division. More in the next issue of the Alberta Naturalist.

(Submitted by Mary S. Lore, Chairman of Environmental Education Committee for F.A.N.)

OLDMAN RIVER BASIN WATER MANAGEMENT STUDY PHASE II

by J.M. Powell
5320 - 122 St., Edmonton, Alta.

The evening session of the FAN Fall meeting at Lundbreck on September 17, 1977, took the form of two presentations related to water use in the Oldman River basin. The second speaker by Jay Purnell, Director of the Irrigation Division of Alberta Agriculture showed the film "The Magic of Water" which stressed the importance of irrigation systems to the agricultural economy of southern Alberta. Although only 4 per cent of the provice is irrigated, those farms

produce 20 per cent of Alberta's crops. The first speaker of the evening was Hilton Pharis, a rancher from the area, a former reeve and now councillor in the Municipal District of Pincher Creek. He is a member of the Oldman River Study Management Committee established by the Alberta Government to oversee the Phase II water management studies of the basin. The terms of reference for this phase of the study which were established in October 1977 will include a water balance model, water use studies, water supply alternatives, water quality study, irrigation studies, environmental overview-environmental inventory, watershed management, groundwater study, wastewater utilization, and economics studies. (FAN has a copy of the Terms of Reference). Because the future of the Oldman River Basin is of interest to a wider audience of naturalists than those present at Lundbreck, Mr. Pharis's presentation at the meeting follows:

"When Mrs. Bailey asked me to have a part in your proceedings this weekend, she remarked that one of the reasons was that she understood I was against building dams! You cannot imagine how that remark startled me. I must say I liked it! That is the first time anyone has pinned that attribute on me although I have made some effort to convince some people that I am not a dam builder. Maybe I was developing a Charlie Brown complex on the issue and my spontaneous reaction was similar to what Charlie Brown's would be if someone were to say to him, "You really are a good pitcher, Charlie Brown."

However, I would not want to be attempting to wear a hat that doesn't fit. After this evening I hope you will not find it necessary to change your appraisal of my intent too drastically.

Up to this point in public discussions on water management, I have declined to discuss actual developments that might take place on the Oldman River regarding water management, and have concentrated on discussing the background studies that must take place if we are to ever move toward the best solutions in the whole management picture. Mrs. Bailey has asked me to comment on offstream storage and watershed management. Before closing this, I must give you some idea of how I think the studies are developing and some of my own ideas on what is taking place. Within the friendly walls of Lundbreck, Century Hall would seem like a suitable place to drop some ideas that might be controversial.

I am not attempting to be a spokesman for the Management Committee although I would expect that most of them will endorse quite a bit of what I will say. Each member will receive a copy of the text of what I am saying here, and you may find it worthwhile to discuss some of these issues with other members of the committee.

The Management Committee has evolved to a rather peculiar position. Nobody loves us or almost nobody.

The people in irrigation who wish to see some action on water storage commenced immediately, view the work of the committee as an unnecessary delay. They are concerned that the committee might come up with some recommendations that in their view would not give them the guaranteed supply of water they are seeking. Because of these suspicions, they have attempted to pressure the Minister into dispensing with the Phase II studies and getting on with some water storage projects.

The local governments are not excited about the Committee's work. At a meeting of local government officials last Monday in Lethbridge, once again the opinion was freely expressed that the Provincial Government must be persuaded to start action immediately.

The MLA's from the south who spoke at the meeting although supporting the need to continue with Phase II studies seemed somewhat more enthused when they assured the audience that a decision would be made by the fall of 1978 or sooner. I don't wish to sound too critical here, for without their support of Phase II studies, another resolution requesting the provincial government to get on with building a dam would likely have been passed.

The people who oppose any onstream storage are understandably not enthused with the studies. For they too can see the possibility of recommendations coming forth that are not in their best interests.

I said nobody loves us? Not so. The Minister of Environment, Dave Russell, still loves us, and well he should of course for we are his creation. Something like a parent-child relationship if nothing else.

I don't intend for this to sound like a plea for sympathy. Harry Truman once said, "People who can't stand the heat should stay out

of the kitchen." This applies to any task that involves a large number of people.

Because of this background of uncertain loyalties some important questions have to be considered. Is there a possibility that the conclusions of the study will just be brushed aside and the government will continue on a pre-determined course? Would a group such as yourselves have more impact on the final decision by lobbying directly with the Department of Environment? Is this whole Phase II exercise worthwhile? What are the alternatives?

I don't know the answer to these questions. I am not so naive in political exercises as to not recognize the possibility of these studies floundering into obscurity. In my opinion there are two factors that have to be built into these studies if they are to have a significant influence on the course of water management in Southern Alberta. First the research and background studies must be as thorough and complete as is possible in the time frame we have been allotted. Second, the concerned public must have an understanding of just what is going on and have opportunity to be involved in the decision-making process regarding final recommendations. If the final draft of these Phase II studies meets these two criteria, then the weight of its credibility will be such that the decision makers will not be able to lightly discard it.

As you are aware, the Management Committee has commissioned studies into many aspects of water use. Among the subjects covered are water supply and use, both now and in the future; water quality; all aspects of irrigation; watershed management; alternative supplies including offstream storage; and others. The committee has had a mathematical water balance model prepared. The purpose of this model is to determine quickly the effect of implimenting any of the many possible water management schemes on our water system. All possible procedures must be tested to show clearly how they will effect the water supply when water yield in the basin is average; above average; or as in the case this year, very low. Also to be plugged into the model must be the effects of increased efficiencies, estimated growth needs, downstream commitments and several other factors. This is a very important part of the studies and here the public must be informed as to what is going in and coming out of the

model. The public must have opportunity to suggest and comment on figures that are being used in the model.

A model of this type does have severe limitations of course. The results are mathematical calculations only. It will tell you what the effect on the supply will be if a given amount of water is allowed to flow in the river at all times, but it cannot tell you what effect that amount of water will have on the fish in the river.

Now I would like to give you some possible assumptions that I believe we must use as bench marks from which to carry on our studies. I don't expect you will agree with all of these. Please do not hang on me forever every observation I make here. Further discussion and studies may prove some of them are wrong. Some of them I sincerely hope you can show me are wrong. In any event, here are six for you to consider:

1. Considering the limited supply of water in the basin it is inevitable that some form of flow control will be done on the Oldman River.

2. There is little to be gained by attaching the general principles of irrigation in Southern Alberta.

3. Regarding water storage, generally speaking offstream storage is much less disruptive from an environmental and sociological point of view than onstream storage.

4. Generally speaking, the farther downstream onstream storage is built the less are the undersirable environmental effects.

5. Headwater watershed management as we know it today has reached the point where no great improvement in water yield can be expected with present methods. In some aspects it has become self-defeating.

6. A number of small reservoirs are not as disruptive as one large one.

I will make a few comments on each point:

1. The average flow of the Oldman River at Lethbridge if uncontrolled would be about 2.3 million acre-feet. Half of this must go to Saskatchewan. This leaves us with about 1.15 million acre-feet. Present withdrawals are now in the vicinity of 3/4 of a million acre-foot. That leaves a surplus of 3 or 4 hundred thousand acre-feet. On above average years of course the amount is much larger. In my opinion, the overwhelming majority of people in Southern Alberta will wish to see the water controlled and used for the economic development of the whole area and they will create enough political pressure to bring this about.

2. Irrigation - We could debate endlessly the economic viability of irrigation in Alberta. The official government policy toward irrigation is that it will be expanded where possible and practical. In my view, the management committee should make known all the aspects of government involvement in financing irrigation. Whether or not the policy is right is a political decision and if changes are to be made they will have to be made in the political field. Certainly all possible undesirable side effects of irrigation such as seepage, salinization of land, quality of return flows, inefficient water use, etc. must be studied carefully and the results of these studies must be considered in developing a management plan. Irrigation is the life line to hundreds of farms and dozens of communities in Southern Alberta and is likely to remain so.

3. Offstream storage is an ideal supply alternative where suitable locations can be found. So far 3 or 4 possible sites have been identified and consultants have been instructed to look for more.

4. Downstream sites are more desirable from an environmental point of view. This may be debatable in certain instances but I believe it is generally true. The problem of course is that as you move downstream, the uses you make of that water becomes more limited.

5. Watershed management as we have known it for the past 25 years has consisted primarily of protecting the plant cover as it naturally exists. Despite many obvious abuses the program has achieved what it set out to do in a large part of the area. Logging practises have been greatly modified, grazing of cattle is carefully controlled, and industries such as strip mining and oil exploration is rigidly controlled as to their effects on erosion. Fire pro-

tection has become very efficient. The self defeating aspects of this program are that some areas are becoming densely covered with forests and dense forests are not the most desirable cover from a water management point of view. If you have attempted to travel in high country in early spring before much of the snow has melted, you will have noticed that the areas not covered with heavy snow pack are either open hillsides or dense timber stands. The places to avoid are small openings in the forest. Professional watershed management people tell us that manipulation of plant cover in high areas is the next and most productive step in increasing water yields in mountain basins. Very basically this means removing half or more of the forest cover in a stripping or checker-boarding pattern. The dividends are two-fold. The small clearings accumulate a good snow pack which melts slowly thus delaying the spring runoff. The forest that has been removed is naturally replaced by low-growing shallow-rooted plants which require much less water than large trees so more water is left to come down the streams.

I am looking forward with interest for the results of these studies. At this time the prospects for increasing water yield by this method are good, but it will likely be some fifteen years or so before the effects of such a program will have much effect. This isn't all that bad. Right now our most pressing problem is not watershed yield. In the nineties it may well be.

6. Small reservoirs are generally less disruptive than large ones. In numerous meetings I have attended and discussed water management in the last few months, this topic always comes up. I have talked to no one who disagrees with this. The costs per acre-foot of storage will be higher but if enough people agree with this principle maybe we will be willing to pay for it.

That ladies and gentlemen is about all I have to say now. Here are a couple of final questions that have plagued me since the beginning of these studies.

Does the water management problem have to become a competitive struggle where one side or the other wins all the marbles? Do you think we can devise a sensible policy that the great majority of people in Southern Alberta will be proud of in five or fifteen years from now?

My hope is that we can. My fear is that somewhere along the line we will miss the essence of truth in this thing and wind up with something a lot less than the best.

I believe you as individuals and as an organization have an opportunity and a responsibility to play an important part in these proceedings. Talk this thing up wherever you can. Get your name on our mailing list. Discuss questions and ideas with the staff of the Public Participation group or with individual members of the Management Committee. The Management Committee meets about every two weeks. When you have questions or constructive ideas arrange with the secretary to meet with the whole committee. Thank you again for giving me this opportunity."

CLUB NEWS

Buffalo Lake Naturalists: The Buffalo Lake Naturalists did not hold regular meetings in July or August, but outings were planned for each month, both of which were cancelled due to weather and other factors. Twenty-four members took part in a hike at Pelican Point, a resort on the north shores of Buffalo Lake.

On September 15 the Regular meeting was held at the Maitland's country home near Buffalo Lake. The October 20 regular meeting was held in the town hall. Marion Goldstrom of Red Deer showed slides of a hiking group in the mountains, and flowers of the mountain regions. On October 23 BLN members and guests from the Stettler Rock Club bussed to Calgary to visit the Glenbow Museum. Submitted by Virginia R. Maitland.

Edmonton Natural History Club: Activities of the Edmonton Natural History Club for this fall include regular meetings held the second Tuesday of each month. Topics will be:

December, local Edmonton Geology

January, Member's Night; President Marg Raine will be retiring

after two years of service

February, An Early Alberta Naturalist - John McDougall

Study nights and field trips will be announced at a later date. A new survey to be conducted by the club this year will involve fall, winter and spring snowy owl counts to determine distribution in and around Edmonton.

Calgary Field Naturalists Society: The December 21 meeting is "Member's Night", featuring presentations by Cathy Blanchard, Bev Sandhu, David Dickson, and Peter Sherrington. CFNS intends to have another "Member's Night" in the spring. The January meeting features Fred McHenry, Director of the Calgary City Parks, discussing city parks management. The winter Study Programs have begun, and, as always, an active winter field trip program is underway, beginning with the Annual Owl Prowl - Snowy Owl hunt - on December 4.

Lethbridge Naturalists' Society:

This summer seven young people were employed to promote the Nature Reserve in the river valley. It has been extensively used in the past by the school children in environmental education but it was felt the public should become more aware of its existence. An interpretive program of tours, naturalist talks, and campground programs were the main efforts and it was felt it was a worthwhile summer.

A group of hardier naturalists are digging holes in the Oldman River sandstone cliffs in hopes of increasing the falcon and goose population. This is being done under guidance of the Canadian Wildlife Service and will be an ongoing program with sites checked and more holes dug yearly.

The spectacular sight of hundreds of bald eagles gathered to feed on the landlocked Kokanee salmon is a yearly trip for Lethbridge naturalists to Glacier National Park in Montana. However, overzealous photographers have prompted park wardens to discourage tourists from coming. Hundreds of visitors daily are disturbing the feeding habits of these great and scarce birds.

It is with sadness that I report the passing of Helen Schuler, Oct. 9, a prominent Lethbridge naturalist. Her illness was always secondary to her interest in the Society and her last message to us was "keep fighting." She will be constantly in our thoughts as we carry out the work she left us to do such as the volunteer work with school children in environmental education. In September she was given an award from the A.T.A. along with Elizabeth Hall for her "extensive contribution to environmental education in Lethbridge." They dedicated hundreds of hours to design, co-ordinate and execute a program involving field trips for Lethbridge elementary school children. Interment was in the cemetery on the Skull Creek family at Maple Creek, Sask., a place she loved dearly. She is survived by her husband Ray, three children and her mother Mrs. Mann. In lieu of flowers donations were made to the Lethbridge Naturalist Society and were earmarked for a suitable building on the Nature Reserve.

Elizabeth Hall, mentioned earlier, has since become a city alderwoman and we hope a voice for environmental protection with the city.

Our president Lynn Richards and her husband Ken have presented us with another naturalist - a son - Oct. 23.

Submitted by Hazel Ross.

PRESIDENT'S PAGE

I am pleased to welcome Virginia Lang back as Editor of the Alberta Naturalist. Virginia has taken over on an interim basis from Martin McNicholl who is now working in Ontario. I know she will do an excellent job assisted by a three member Publications Committee chaired by Graeme Greenlee. Mary Lore is planning to edit a junior section in the near future.

Fall Fan Meeting

The September Meeting was held at Lundbreck Falls in the Crow's Nest

Pass region of Southern Alberta. About 40 people attended from all the clubs in the Federation. Our hosts, the Lethbridge Naturalists, guided two rather damp Saturday field trips while the Directors met. The end of the meeting seemed to retreat further and further away as the meeting progressed. I have briefly outlined some of the more interesting items.

John Powell, reported on several meetings he had attended on behalf of FAN. He is our representative on the Public Advisory Committee (PAC) for the Environmental Conservative Agency. His committee, the Environmental Protection Study Group, passed a resolution urging enforcement of the regulations governing forest and wilderness areas. Just like so many regulations governing environmental matters, there is lots of good legislation but financing is so poor that it is impossible to adequately enforce them. This is especially true of hunting regulations. Other matters discussed were the harmful effects of artificial light in buildings, a long term grazing policy for Suffield, and the Banff sewage problem in the Bow River. John was concerned that the road planned through Wood Buffalo National Park will endanger the nests of thw Whooping Cranes. He reported that the Annual General Meeting of PAC will be held in Red Deer Nov. 17th - 19th.

The Director agreed FAN should continue its involvement with PAC and that JOhn should not yield to pressures urging committee members to resign but should remain as our representative. The Directors decided to donate $125.00 to the newly formed Committee on Environmental Public Participation (C.E.P.P.) to assist in protesting the planned restructuring of the ECA. CEPP is a steering committee born out of a meeting of interested groups concerned about the future of the ECA and public participation.

John also reported on the activities of the Fish and Wildlife Advisory Council. Members of the committee were upset at the Minister's change of dates of the Moose hunting season. The season was set late enough to ensure cattle were brought out of the reserves before the hunters took over. The original date was brought forward two weeks because some outfitters complained about the late start of the season. This was unfair to outfitter who had already booked clients in advance as they lost two weeks business. It appears that hunting seasons are set for political reasons and are not necessarily in the

best interests of game management.

Mike McIvor, Chairman of the Wilderness, Parks and Natural Areas Committee, reported on the progress of the Parks for Tomorrow group. The Directors voted unanimously to support the planned protest march in Banff on Oct. 23rd. A $50.00 donation was sent to the organization to assit with publicising the reasons for the protest. Namely, the decision to expand the Sunshine Ski Resort, the hay cutting in Riding Mountain National Park and the brief but significant decision to allow grazing in Waterton National Park. Mike pointed out that major changes in Park management are occurring and the Federal Government still has not released its new Parks Policy to the general public.

Mike reported that more public hearings are to be held to discuss the Cypress Hills Master Plan, more individual submissions from naturalists in Southern Alberta are needed. The proposed Milk River Natural area also needs support from southern naturalists. FAN only has one club in the south, we really should have a group in the Medicine Hat area. It only takes 6 people to organize a naturalist club, and surely we have that many people in Southern Alberta.

Graeme Greenlee attended a meeting organized to set up a management committee to administer a quarter section of land set aside as a sanctuary near Devon. Representatives from other groups and nature clubs will also be members of the committee. If this venture is successful, it may inspire other property owners who wish to preserve some of their land in its natural state to will it to an organization such as FAN.

Stephannie Proudfoot, a new FAN Director has volunteered to attempt the formidable task of surveying FAN's library and deciding what to do with it. It is a pity the library is not easily accessible to members, and any suggestions will be gratefully received.

After the conclusion of the Director's Meeting, members were able to hear both sides of the Three River Dam controversey. The following day we visited the area to be flooded. Irrigation seems to make an enormous difference to the productivity of the land in Southern Alberta but flooding part of the valleys of the Castle, Old Man and Crow's Nest Rivers will be devastating to the wildlife of the area. The valleys, with their luxuriant vegetation, sharply

contrast with the wind-blown grasslands. Without the protection of the wooded river banks, many species of wildlife will have a hard time surviving and making a living in the wintertime. Mary Lore said, "the conclusion reached at the CNF Conference was that people, petroleum and agriculture must cooperate to protect and preserve wildlife". One wonders why governments refuse to consider alternatives to the short term and dubious benefits of dams.

The September Meeting broke up after lunch at Livingstone Gap. We spent a pleasant hour enjoying the Fall scenery and watching the Dippers and Harlequin Ducks dining in the cold mountain stream that rushed through the spectacular gorge. After thanking the Lethbridge club for their hospitality we all departed hoping to meet again in the spring.

Our next meeting will be held at Camp Caroline March 10th - 12th, 1978. (See "FAN News", this issue, for details).

CONSERVATION NEWS

Speak Out - Snowmobilers are agitating against the limitations placed upon them in the Kananaskis and the eastern slopes areas. Organized snowmobilers are becoming more responsible and naturalists should make themselves aware of their concerns. If naturalists and environmentalists want the Government to recognize them as an organized group, concerned individuals should write the Minister, Mr. Dallas Schmidt, letting him know their needs and opinions. Recreational groups are becoming very vocal in this province, and no one is going to pay attention to naturalists who are too lazy to bother expressing their concerns. (Submitted by Dorothy Broadbent).

Bear victim's parents file suit - The Regina couple whose 5-year-old daughter was killed by a grizzly bear in Waterton Lakes National Park July 1 have filed a lawsuit against the Crown. First, they ask compensation because they say the Crown should compensate bear victims without question, as would a homeowner who keeps a dog which sometimes bites. They also ask compensation because the park was

allegedly negligent (they were not warned, the park failed to post adequate signs, failure to control and manage the park's bear population, failure to provide methods of escaping a bear attack, failure to supervise the Little Prairie Picnic Ground, the park failed to enact regulations to control bears in the park, and negligence was involved when the picnic ground was designated for public access). Early in December the Crown will file a statement of defence. The matter then goes before a hearing to discover whether grounds are adequate for a court hearing.

Radio tags tied to fish - An Alberta project to study fish movement is using radio transmitters which will broadcast the location of 20 fish for 8 months. Bryant Bidgood, a fisheries research biologist with the fish and wildlife branch, said the radio tagging technique, which his research group has been perfecting for the last two years, will provide greatly improved data on fish movement, resulting in a better understanding of fish habits and survival requirements. (Lethbridge Herald, October 22, 1977).

Baby whale dead - Tuaq, the beluga whale born at the Vancouver Public Aquarium, died. Klaus Michaelis, the aquarium's chief trainer, said "we have no idea what was wrong. We know his blood count was down, but we don't know the cause of his death". (Calgary Herald, November 3, 1977).

California Condor - The Bulletin of the Manitoba Naturalists' Society reports a California Condor was recently found shot in southern California. Officials say the bird probably will live but be unreleasable. There are fewer than 50 California Condors known to exist.

1080 Replaced by lithium Chloride for Coyotes - A Saskatchewan sheep rancher has found that replacing the poison 1080, used extensively for coyote control, with lithium chloride, his sheep losses are practically non-existent. Lithium chloride causes temporary severe illness and vomiting resulting in coyotes developing an aversion to sheep. (The Wildlife Protector 1(2): 29)

Court decision could have far-reaching effect - In the 1800s, tourist trains brought people from across Canada and the northern United States to see the Elora Gorge, a unique and beautiful

natural wonder located near the southern Ontario town of Elora. Now, in the name of progress, the gorge is being threatened. Concerned citizens, defeated at two judicial hearings to date, are seriously considering taking their case to the Supreme Court of Canada. Such a case could hold significance for more than just the future of the gorge. According to some, Ontario's entire environmental movement is at stake. Since 1971, the County of Wellington has been attempting to gain approval for the construction of a bridge across the deepest and most picturesque part of the gorge where the Grand River meets Irvine Creek. Three years ago, citizens who opposed the bridge joined other environmental groups, including the Canadian Environmental Law Association, to form a coalition called GORGE - Groups Organized to Retain the Gorge for Everyone. GORGE's aim is to protect Elora Gorge from the winter road salt, the noise, the fumes and the visual disruption that a bridge would bring.

In June, 1974, the Grand River Conservation Authority voted to give up some of its parkland to the county for access to the proposed bridge. Two members of the Conservation Authority had voted against the proposal, and they took both the Authority and the county to court, seeking an injunction to stop the bridge. They claimed that the Conservation Authority had no right to transfer the land except for the purposes of "conservation, restoration, (parkland) development and management", as set out in the Conservation Authorities Act. The citizens and the two opposing Authority members believe that the building of a bridge would be inconsistent with those objectives.

David Estrin of the Canadian Environmental Law Association prepared the case on behalf of the GORGE members, and asked E.A. Goodman, Q.C., one of Ontario's most experienced and respected counselors, to represent the interests of the coalition in general and the two Authority members in particular. At a hearing last July, Mr. Justice F.S. Weatherston ruled that only the Attorney General can launch legal action against a public body when matters of infringement of public rights are concerned. The case was appealed to the Ontario Court of Appeal and Justice Weatherston's ruling was upheld.

That decision is viewed as a serious setback for the province's environmental movement. If only the Attorney General can go to court to protect public lands, citizens would effectively be prevented from fighting environmental abusers - even when laws are being broken.

If the GORGE coalition is to continue its fight to preserve Elora Gorge, more funds are needed. The cost of the case has been substantial, and the environmental groups directly involved can not absorb all the expenses. The Canadian Wildlife Federation urges concerned Canadians to assist by sending donations to:

Elora Gorge Defence Fund,
c/o The Canadian Environmental
Law Association,
1 Spadina Crescent, Suite 303,
Toronto, Ontario M5S 2J5.

WATER MANAGEMENT

by Maryhelen Posey,
61, Wright Ave., Red Deer.

The last event at the annual meeting of the Public Advisory Committee to the ECA was a panel on water management. The panelists were Dr. A. Laycock, Dept. of Geography, University of Alberta; Mr. P. Melnychuk, Assistant Deputy Minister, Dept. of the Environment; Dr. D. Thompson, Faculty of Environmental Design, University of Calgary; and Mr. F.A. Ross, Manager of the Lethbridge North Irrigation District; Mr. J.H. Merean, Faculty of Education, University of Calgary, moderator.

Dr. Laycock, informing us that he was deliberately oversimplifying to show the polarities involved, contrasted Alberta's procedures for evaluation of a water management project with those now in widespread use elsewhere in North America. Although it is no longer

common elsewhere, Alberta still puts a good deal of the burden of proposing solutions to water problems on senior civil servants; this method, he contended, is likely to lead to the consideration only of large-scale projects such as dams and inter-basin transfers, because a government department is well-organized to produce such plans. The alternatives which are considered are apt to be extremely unattractive ones, such as ground-water recovery or desalinization, which means that approval of the favored plan is made more likely; several other provinces have handled this problem by separating water managements projects, and project review into different departments. The separate project review leads to more adequate cost/benefit calculations. For instance, flood control dams will be contrasted with plans which reduce the cost of floods (involving zoning, flood prediction, erosion control, rather than dams and dikes); secondary sources, such as reducing wastage or recycling, and less sizable projects such as off-stream storage, will be considered as alternatives; secondary and tertiary benefits will be examined for a variety of projects; beneficiaries will be more carefully indentified, the magnitude of the need carefully projected, cost to user calculated, the possibilities of locating users, especially those who both use and pollute water in quantity, closer to sources will be taken into account. He recommended as procedural models the Canada Water Yearbooks, the US National Water Policy, and numerous US water basin studies and Canada Water Act studies.

Mr. Melnychuk summarized the principles which govern water management in Alberta. These are set out in a 14-point list; however, they can be discussed a bit more compactly for our purposes. Although Alberta water is not for export, there are agreements covering all rivers which flow from Alberta into another province, concerning the amount and quality of the water available beyond Alberta borders; for these purposes, the Oldman, Bow, and Red Deer basins are considered together as the South Saskatchewan basin, and water used from, say, the Oldman can be made up by diversion into the Red Deer. This is of especial importance, because water management planning in Alberta places priority on the South Saskatchewan basin as the watershed of lowest precipitation, most variable supply, and highest use, and the government has undertaken not to let water supply be a limiting factor on economic or social planning.

Water management projects are to be undertaken on a cost-sharing

basis, or a provincial expense, with the larger proportion of the cost borne by the province where the number of beneficiaries can be expected to be large. All major projects affecting large numbers of people will involve public participation by a method considered suitable by the Department of the Environment, and all projects with major environmental impact will require environmental assessment studies; the determination of which projects meet these conditions rests with the Department.

Licenses for water use are granted taking into account an order of priorities in use (human use, food production, industrial use, other), and will carry restrictions which may incorporate measures for prevention of pollution, protection of other users, and, increasingly, charges which permit recovery of the costs of improvements.

Dr. Thompson put forward three main points: inadequate charges for water, insufficient support for water management research, and inappropriate methods of cost-sharing. In connection with the charges to the user of water, he adduced several examples to demonstrate that low charges encourage wasteful use of water, and that with appropriate charges to the user several rarely-used water management practices (such as off-stream storage, trickle irrigation, and effluent treatment) would become cost effective. The research he would like to see better funded in Alberta would be such as to concentrate on reducing water use and/or pollution, rather than increasing supply; this might produce secondary benefits in the form of new industries as well as assisting in water management. Finally, if we more carefully identified the beneficiaries of water management projects, we could ensure that they took a reasonable share of the costs; he gave two provocative examples, one requiring cities to put their water intakes downstream of their effluent, the other setting up a land lottery of the holdings of beneficiaries of a dam, to be open to them and also those who lost land to the project, pointing out that these are dramatization of what can be accomplished in more prosaic ways.

Mr. Ross gave a brief history of irrigation in Alberta, pointing out that it was begun by private developers who found that the costs of the projects were not recoverable from sale of the food produced, and that secondary and tertiary benefits were of considerable importance, pointing to the growth of Lethbridge in contrast to Drumheller

as an example. Irrigation methods which are both energy and water saving are being encouraged, but some of the existing techniques are limited in application and research is needed to make more available, or to permit wider application of existing methods. He sees increased irrigation and more developed flooding as definite trends, not only in Alberta but world-wide.

Mr. Merean closed by recommending two books for interested readers:

Ecology and the Politics of Scarcity, William Ophuls

Managing the Commons, Garrett Hardin and John Baden

NOTES AND NEWS

Southern Alberta Nature Art Show - You are invited to participate in the Southern Alberta Nature Art Show to be held at the Galt Museum Jan. 27 - Feb. 26, 1978. The subject matter will be any natural history phenomena indigent to Southern Alberta. Work, up to three pieces, may be 2 or 3 dimensional, in any medium. The closing date for entries is January 13, 1978. Phone (403) 328-6455 or write the Sir Alexander Galt Museum, Community Services Department, City of Lethbridge, for further information and entry forms.

Publications Available - The Alberta Wilderness Association advises us the following publications are available: Elbow-Sheep Headwaters, 570 sq. miles, 42 pp., 16 maps, illustrated, $3.00; 9 Wildland Recreation Areas on Alberta's east slopes, approx. 100 pages, 50 maps, trail guide, illustrated, $4.00; Willmore Wilderness Park, 1800 sq. miles, north of Jasper, approx. 45 pp., 6 maps, trail guide, illustrated, $3.00; The Western Swan Hills: Alberta's Forgotten Wilderness, 45 pp., 5 maps, flora and fauna checklist, illustrated, $3.00. Available from A.W.A., Box 6398 - Stn. 'O', Calgary, Alta T2P 2E1.

REQUESTS FOR INFORMATION

A Request for Bird Banders

During the last ten to fifteen years, bird banding in Alberta has increased at a phenomenal rate. The bluebird trails, the C.W.S. involvement with birds of prey, and miscellaneous other recent developments, including rising interest, have all contributed to this increase. A list of banders would read like the 'Who's Who' of Alberta birders. They have done a remarkable job and I am indebted to many of them for helping me get started.

But, (and here comes the pitch) there has been a lack of communication. Except for a few groups who associate semi-regularly, (the C.W.S. birds of prey people - and J.C. Finlay's Bluebird Banders) there has been little exchange of ideas. There is not even any published sharing of ideas, areas of interest, helpful hints (except the North American Bird Bander - which only includes a few of the many banders from Alberta) or totals, which I'm sure everyone would welcome.

Now, my idea - admittedly maybe too far-reaching - is to correlate much (all?) of the material for Just Alberta: totals and returns for a starter, with, perhaps, some outstanding particulars from any given year, to be published annually in the Alberta Naturalist.

I would love to have everyone respond either by writing me (R.R. 2, Kingman), or phoning me (1-662-2859), with ideas, suggestions, criticisms, banding data, names of banders. Perhaps, with your help we could let people know what we're doing.

Ken Trann

Color-banded Semipalmated and Least Sandpipers

In 1976 and 1977 the Surinam Forest Service banded thousands of Semipalmated and Least Sandpipers. Birds are banded above the

tarsus ("knee") with a standard aluminium band and two orange plastic bands of about the same size as the aluminum band. Send reports of observations to Arie L. Spaans, Surinam Forest Service, P.O. Box 436, Paramaribo, Surinam, South America. Please report species, date and location of observations, the position of the aluminum and color-bands - left or right leg, and, if more than one band is on a leg, which band is above, which below, and which in the middle (some birds have all three bands on one leg) - and the number of color-banded birds involved.

OVERHEARD (65)

Principles of bird collecting

"Specimens are isolated facts, and hundreds of them taken at the wrong season may prove nothing, while one taken at the proper time may prove everything, provided the principles of moult are understood. Quality and not quantity of material for study determines its value."

Jonathan Dwight, Jr., 1900 Ann. New York Acad. Sci. 13(2): 75.

OVERHEARD (66)

If only all politicians felt the same

"If a person is not at home with nature, then I think he is not at home with himself either."

Prime Minister Indira Gandhi of India, 1976, quoted by John J. Putnam, National Geographic 150: 341.

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Deadlines for submission of material to the Editor are: February 1, May 1, August 1, and November 1. Please include your address. All maps, charts, etc., should be submitted on white paper, of the appropriate size for publication, preferably done in type and/or india ink

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